

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

## Pham 164126 Report

This analysis was run 05/04/24 on database version 560.

Pham number 164126 has 9 members, 2 are drafts.

Phages represented in each track:

Track 1 : Sarge\_15

Track 2 : BrayBeast\_15

Track 3 : Kumotta\_16

Track 4 : Shoya\_14

• Track 5 : Maja\_15

Track 6 : Aoka\_16

• Track 7 : GMA4 15

• Track 8 : Whack 15

• Track 9 : REQ2\_17

# Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 3, it was called in 6 of the 7 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

Aoka\_16, BrayBeast\_15, Kumotta\_16, Maja\_15, Sarge\_15, Shoya 14,

Genes that have the "Most Annotated" start but do not call it:

Genes that do not have the "Most Annotated" start:

GMA4\_15, REQ2\_17, Whack\_15,

### Summary by start number:

#### Start 3:

- Found in 6 of 9 (66.7%) of genes in pham
- Manual Annotations of this start: 6 of 7
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aoka\_16 (FO), BrayBeast\_15 (FB), Kumotta\_16 (FB), Maja\_15 (FO), Sarge\_15 (FB), Shoya\_14 (FB),

#### Start 4:

- Found in 2 of 9 (22.2%) of genes in pham
- Manual Annotations of this start: 1 of 7
- Called 100.0% of time when present
- Phage (with cluster) where this start called: REQ2\_17 (singleton), Whack\_15 (singleton),

#### Start 6:

- Found in 1 of 9 (11.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA4\_15 (singleton),

## **Summary by clusters:**

There are 3 clusters represented in this pham: FB, singleton, FO,

Info for manual annotations of cluster FB:

•Start number 3 was manually annotated 4 times for cluster FB.

Info for manual annotations of cluster FO:

•Start number 3 was manually annotated 2 times for cluster FO.

#### Gene Information:

Gene: Aoka 16 Start: 10072, Stop: 10934, Start Num: 3

Candidate Starts for Aoka\_16:

(Start: 3 @10072 has 6 MA's), (9, 10243), (15, 10315), (17, 10336), (18, 10339), (23, 10432), (32, 10528), (33, 10534),

Gene: BrayBeast 15 Start: 8914, Stop: 9761, Start Num: 3

Candidate Starts for BrayBeast\_15:

(1, 8797), (Start: 3 @8914 has 6 MA's), (9, 9076), (12, 9112), (15, 9148), (17, 9169), (18, 9172), (22, 9262), (27, 9322), (29, 9337), (37, 9475), (38, 9484), (48, 9613), (54, 9724),

Gene: GMA4\_15 Start: 9946, Stop: 10748, Start Num: 6

Candidate Starts for GMA4\_15:

(2, 9769), (6, 9946), (10, 10039), (19, 10159), (20, 10171), (24, 10246), (28, 10294), (45, 10546), (52, 10699),

Gene: Kumotta\_16 Start: 9768, Stop: 10615, Start Num: 3

Candidate Starts for Kumotta 16:

(Start: 3 @ 9768 has 6 MA's), (5, 9840), (9, 9933), (10, 9945), (15, 10005), (16, 10017), (17, 10026), (18, 10029), (22, 10119), (27, 10179), (31, 10200), (34, 10251), (37, 10335), (42, 10422), (43, 10425), (44, 10434),

Gene: Maja\_15 Start: 9389, Stop: 10245, Start Num: 3

Candidate Starts for Maja 15:

(Start: 3 @ 9389 has 6 MA's), (9, 9554), (15, 9626), (17, 9647), (18, 9650), (19, 9677), (27, 9800), (29, 9815), (34, 9869), (35, 9902), (49, 10097), (54, 10205),

Gene: REQ2\_17 Start: 11626, Stop: 12441, Start Num: 4

Candidate Starts for REQ2 17:

(Start: 4 @11626 has 1 MA's), (5, 11674), (14, 11821), (25, 11983), (26, 11992), (39, 12175), (40, 12217), (41, 12220), (46, 12262), (50, 12316),

Gene: Sarge\_15 Start: 8825, Stop: 9672, Start Num: 3

Candidate Starts for Sarge 15:

(1, 8708), (Start: 3 @8825 has 6 MA's), (9, 8987), (12, 9023), (15, 9059), (17, 9080), (18, 9083), (22, 9173), (27, 9233), (29, 9248), (37, 9386), (47, 9506), (48, 9524), (54, 9635),

Gene: Shoya\_14 Start: 8461, Stop: 9308, Start Num: 3

Candidate Starts for Shoya\_14:

(1, 8344), (Start: 3 @8461 has 6 MA's), (9, 8623), (13, 8668), (15, 8695), (17, 8716), (18, 8719), (22, 8809), (27, 8869), (29, 8884), (37, 9022), (48, 9160), (54, 9271),

Gene: Whack\_15 Start: 9533, Stop: 10330, Start Num: 4

Candidate Starts for Whack\_15:

(Start: 4 @9533 has 1 MA's), (7, 9635), (8, 9665), (11, 9698), (21, 9818), (30, 9923), (36, 10046), (51, 10256), (53, 10295),